

L 06089-67 EWT(d)/EWT(m)/EWP(v)/EWP(j)/EWP(t)/ETI/EWP(k)/EWP(h)/EWP(c) LIP(c)
 ACC NR: AP6023552 (N) SOURCE CODE: UR/0318/66/000/006/0035/0038
 JD/HW/WB/RM/JH
 AUTHOR: Kornus, V. M.; Poyezd, D. F.; Basmanov, I. P.; Eppel', S. A.
 ORG: none
 TITLE: Experiments in the application of corrosion resistant and wear resistant materials in the production of catalysts
 SOURCE: Neftepererabotka i neftekhimiya, no. 6, 1966, 35-38
 TOPIC TAGS: corrosion resistance, wear resistance, industrial catalyst
 ABSTRACT: The article consists of a review of the advantages and disadvantages of various construction materials in the fabrication of equipment for the production of catalysts. Vinyl plastic tubes and valve fittings: these are recommended for nitric acid in concentrations up to 55-60% and a temperature up to 40°. Heat resistant glass: recommended for such acids as hydrochloric and nitric at any given concentrations and temperatures to 100°. Ferrosilides: recommended for pneumatic transport tubing; used in the transport of dry materials where good wear resistance is needed. Rubber lined tubes and fittings: recommended for aggressive media such as aluminum sulfate, sulfuric acid, ammonia solutions, and caustic soda. Aluminum tubes: recommended for normal operation with such media as aqueous solutions of different neutral salts, and for suspensions. Alloy steel Type 1Kh18N9T: for general use in all media except
 Card 1/2 UDC: 665.652.87.097.3.002.2:678.06+669.14.018.87

L 06089-67

ACC NR: AF6023552

solutions of hydrofluoric, hydrochloric, and dilute sulfuric acid. Porcelain fittings: for all media except hydrofluoric acid, at working temperatures not greater than 100-120°. The article concludes with a discussion of special coatings, such as acid resistant brick, enameled coatings, rubber linings, perchlorovinyl lacquers, and diabasic tiles. Orig. art. has: 3 figures.

SUB CODE: 07, 11, 20/ SUBM DATE: none

Card 2/2 JS

EPPEL', S.S.

RUSAKOV, Sergey Ivanovich, kandidat tekhnicheskikh nauk; FUDNIK, F.P.; SAVOSTITSKIY, A.V.; TRUKHAN, G.L.; EPPEL', S.S.

[Sewing technology] Tekhnologiya shveinogo proizvodstva. Moskva, Gos. izd-vo
Ministerstva legkoi i pishchevoi promyshl., 1953. 656 p. (MLA 6:12)
(Clothing industry)

EPPEL, SERGEY SERGEYEVICH

RUSAKOV, Sergey Ivanovich; SERGONVIN, Ivan Vasil'yevich; EPPEL', Sergey
Sergeyevich; PLEMYANNIKOV, M.N., redaktor; ARKHIPOV, N.N., inzhener,
Patsensent; EL'KINA, N.M., tekhnicheskij redaktor

[Industrial sewing equipment] Oborudovanie shveinykh fabrik. Moskva,
Gos.nauchno-tekhn.isd-vo Ministerstva promyshlennykh tovarov shirokogo
potrebleniia SSSR, 1955. 463 p. (MIRA 9:1)
(Sewing machines)

ARKHIPOV, Nikolay Nikolayevich; KARPACHEV, Pavel Spiridonovich;
MAYZEL', Maks Mikhaylovich, doktor tekhn. nauk, prof.;
PLEVAKO, Nikolay Alekseyevich; ZAYONCHKOVSKIY, A.D., doktor
tekhn. nauk, prof., retsenzent; ZOLOTOV, V.I., inzh., retsen-
zent; ZYBIN, V.P., doktor tekhn. nauk, retsenzent; KAPUSTIN,
I.I., doktor tekhn. nauk, prof., retsenzent; KOZLOV, B.A.,
inzh., retsenzent; POPOV, S.M., doktor tekhn. nauk, prof.,
retsenzent; EPPFEL', S.S., kand. tekhn.nauk, dots., retsen-
zent; MINAYEVA, T.M., red.; SHVETSOV, S.V., tekhn. red.

[Basic processes, machinery, and apparatus of light industry]
Osnovnye protsessy, mashiny i aparaty legkoi promyshlennosti.
[By] N.N.Arkipov i dr. Moskva, Izd-vo nauchno-tekhn. lit-ry
RSFSR, 1961. 491 p. (MIRA 15:2)
(Industry)

RUSAKAV, Sergey Ivanovich; TRUKHAN, Gennadiy Lukich; EPPEL', Sergey
Sergeyevich; POPKOV, Vasilii Ivanovich; VORONIN, G.M., inzh.,
retsenzent; KARASEV, V.K., dots., retsenzent; ANTIPOVA, A.I.,
prepod., retsenzent; SHANG'GINA, V.F., kand. tekhn. nauk,
retsenzent; MINAYEVA, T.M., red.; SHAPENKOV, T.A., tekhn. red.

[Technology of clothing manufacture] Tekhnologiya shveinogo
proizvodstva. Izd.2., perer. i dop. Moskva, Gos. izd-vo
"Rostekhnizdat, 1961. 670 p. (MIRA 15:2)
(Clothing industry)

EPPEL', S.S. (Moskva)

Training of mechanical engineers for the clothing industry:
Shvein. prom. no. 414-6 JI-Ag '62. (MIRA 16:6)

(Clothing industry)
(Technical education)

EPPEL', S.S. (Moskva)

Selecting the type of the drive for ironing presses. Shvein.
prom. no.3:7-13 My--Te '63. (MIRA 16:8)

EPPEL', S.S. (Moskva)

Drive for ironing presses. Shvein. prom. no.6:15-17 N-D '64
(MIRA 18:2)

~~SECRET~~ V.

20-119-1-26/52

AUTHORS: Vinnik, M. I., Manelis, G. B., Epple, G. V., Chirkov, N. M.

TITLE: Kinetics of Isobutylene Polymerization in the Presence of Boron Fluoride Etherate (Kinetika polimerizatsii izobutilena v prisutstvii efirata ftoristogo bora)

PERIODICAL: Doklady Akademii Nauk SSSR, 1958, Vol. 119, Nr 1, pp. 98-100 (USSR)

ABSTRACT: The present paper investigates the polymerization of iC_4H_8 in the presence of a complex compound of the diethyl ether with boron fluoride: $(C_2H_5)_2O \cdot BF_3$. The catalyst $(C_2H_5)_2O \cdot BF_3$ in the form of a thin adsorbed film was applied to the surface of little tubes of melted quartz for the purpose of avoiding diffusion-conditioned disturbances. The reaction container with an insertion of little quartz tubes was evacuated to a pressure of from 10^{-4} - 10^{-5} mm of mercury column previous to the experiment. At first the necessary pressure of ether vapor was produced in the reaction container and then the boron fluoride was introduced. In every experiment the pressures of etherate ($p_{etherate}^g$) of boron fluoride

Card 1/3 ($p_{BF_3}^g$), of ether in the gaseous phase (p_{ether}^g), corresponding

20-119-1-26/52

Kinetics of Isobutylene Polymerization in the Presence of Boron Fluoride Etherate

to the equilibrium and the quantity of the etherate ($P_{\text{etherate}}^{\text{fl}}$) condensed on the surface were determined. The data used for the determination of these values are given in brief. Special attention was paid to the production of the pure reagents which must not contain any traces of moisture. The reaction velocity was expressed by the reduction of the isobutylene pressure referring to 1 mole of the adsorbed etherate. A diagram shows the kinetic curve and its anamorphosis for the polymerization process of iC_4H_8 in the presence of the etherate $(C_2H_5)_2O.BF_3$. If $t = 70^\circ C$ and $P_{iC_4H_8}$ is small

(up to 100 - 1500 mm of mercury column), the kinetic equation up to a 40 - 50 per cent transformation can easily be expressed by a secondary order equation. The constant of velocity K_1 thus determined does not depend on the initial pressure of the iC_4H_8 . The influence of ether on the catalytic activity of the $(C_2H_5)_2O.BF_3$ is similar to the influence of water on the acidity of mineral acids (phosphoric acid, sulfuric acid etc.). Such an intense influence of the ether - even at low concentrations - can only be explained by its

Card 2/3

20-119-1-26/52

Kinetics of Isobutylene Polymerization in the Presence of Boron Fluoride Etherate

basic properties. A diagram and a table illustrate the dependence of the constant K_p of the polymerization velocity on the pressure of boron fluoride in gaseous phase corresponding to the equilibrium. The etherate of boron fluoride is an effective catalyst for the polymerization of iC_4H_8 . Judging from the catalytic activity the etherate must have the properties of an intense acid. There are 3 figures, 1 table, and 7 references, 3 of which are Soviet.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR
(Institute for Chemical Physics AS USSR)

PRESENTED: August 7, 1957, by V. N. Kondrat'yev, Member, Academy of Sciences, USSR

SUBMITTED: August 1, 1957

Card 3/3

ENTELIS, S.G.; EPPLÉ, G.V.; CMIRKOV, N.M.

Kinetics of the reduction of triphenylcarbinol by isopropyl alcohol in an aqueous sulfuric acid medium by hydride transfer.
Dokl. AN SSSR 136 no. 3:667-670 Ja '61. (MIRA 14:2)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno akademikom V.N. Kondrat'yevym.
(Reduction, Chemical) (Methanol) (Isopropyl alcohol)

ENTELIS, S.G.; TIGER, R.P.; EPFLE, G.V.; CHIRKOV, N.M.

Kinetics of the reduction of diphenyl-m-tolylcarbinol by isopropyl alcohol by hydride transfer in the system $H_2SO_4 - H_2O$. Dokl. AN SSSR 137 no.6:1420-1423 Ap '61. (MIRA 14:4)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno akademikom V.N.Kondrat'yevym.

(Methanol) (Isopropyl alcohol)

NOTES, G.C.; EPPLE, G.V.

Application of Eyring's equation to the reaction of
hydride transition in an acid medium. Dokl. AN SSSR 141
no.1:121-124, 1961. (Chem. 14:11)

1. Institut Khimicheskoy Fiziki AN SSSR. Predstavleno akademikom
V.M. Kozlovskiy.

(Methanol)

(Hydrides)

(Chemical reaction, Rate of)

EPPLE, G.V.; ODINTSOVA, V.P.; ENTELIS, S.G.

Kinetics and mechanism of dianisilphenylcarbinol reduction
with isopropyl alcohol in a medium of $H_2SO_4 - H_2O$ and $HCl - H_2O$.
Kin. i kat. 2 no. 6: 821-826 N-D '61. (MIRA 14:12)

1. Institut khimicheskoy fiziki AN SSSR.
(Methanol)
(Isopropyl alcohol)

EPPLE, G.V.; ODINTSOVA, V.P.; ENTELIS, S.G.

Measurement of the secondary Dono acidity function (C) of the
HCl - H₂O system. Izv.AN SSSR.Otd.khim.nauk no.8:1365-1367 Ag '62.
(MIRA 15:8)

1. Institut khimicheskoy fiziki AN SSSR.
(Hydrogen-ion concentration) (Hydrochloric acid)

TIMOFLEYEV, V.A., inzh.; EPPLE, V.H., inzh.

Testing a screw-press for peat briquetting. Torf.prom. 33 no.1:27-
28 '61. (MIRA 14:2)

1. Gipromestprom. (Power presses) (Peat)

EPRES, Laszlo

Hungarian motorcyclists in the German Democratic Republic.
Auto motor 16 no.22:29 21 N '63.

1. MMSZ Salakbizottsaga.

EPRO, V.R., inzh.; NEYLAND, G.K., inzh.

From practices in the use of the KVN-2 vibration potato digger. Trakt. i
sel'khoz mash. 33, no. 1:40 Ja '63. (MIRA 16:3)

1. Nauchno-issledovatel'skiy institut mekhanizatsii i elektrifikatsii
sel'skogo khozyaystva Latvyskoy SSR.
(Latvia--Potato digger (Machine))

EPSHTEIN, F. O.

Virus and rickettsial diseases of the respiratory tracts. Terap.
34 no.1:114-115 '62. (MIRA 15:7)

(RICKETTSIAL DISEASES) (VIRUS DISEASES)
(RESPIRATORY ORGANS--DISEASES)

137 AND 138 DEPT. PROCESSES AND PROPERTIES INDEX		7
<p>EPSTEYN, A.</p> <p>The Influence of Various Factors on the Oxidizing Capacity of Open-Hearth Furnaces. Y. Shneerov and A. Ephshteyn. (Stal, 1937, No. 7, pp. 23-20). (In Russian). Data are presented regarding the variation of the oxidizing capacity of an open-hearth furnace with the chemical composition of the charge, the duration of the various stages of the melting process, the weight of the charge and finally the effect of substituting alaked lime for limestone. It was concluded that the capacity of an open-hearth charge to undergo oxidation (amount of oxygen absorbed by the charge during the period of adding the charge and subsequent melting) varied for different furnaces and also varied for one and the same furnace, depending on a number of factors. As regards the chemical composition of the charge, with an increase in the percentage content of ore, the oxidizing effect of the flame on the charge is lowered, and this, at the same time, lowers the effect of various other factors—for example, that of the silicon content of the charge. The oxidizing effect of the flame was found to increase slightly with an increasing carbon content and with an increasing liquid metal content of the charge. The oxidizing capacity of the charge during the various stages of melting was different; in particular, it was considerably lower during the boiling period than during the various preceding stages. As regards the effect of the absolute weight of the charge, an increase in the latter will increase the surface area and time of contact between the charge and the flame, and consequently increase the</p>		
<p>(Con't on other side)</p>		
<p>ASR-5LA DETALLURGICAL LITERATURE CLASSIFICATION</p>		
<p>13800 13810 13820 13830 13840 13850 13860 13870 13880 13890 13900 13910 13920 13930 13940 13950 13960 13970 13980 13990 14000 14010 14020 14030 14040 14050 14060 14070 14080 14090 14100 14110 14120 14130 14140 14150 14160 14170 14180 14190 14200 14210 14220 14230 14240 14250 14260 14270 14280 14290 14300 14310 14320 14330 14340 14350 14360 14370 14380 14390 14400 14410 14420 14430 14440 14450 14460 14470 14480 14490 14500 14510 14520 14530 14540 14550 14560 14570 14580 14590 14600 14610 14620 14630 14640 14650 14660 14670 14680 14690 14700 14710 14720 14730 14740 14750 14760 14770 14780 14790 14800 14810 14820 14830 14840 14850 14860 14870 14880 14890 14900 14910 14920 14930 14940 14950 14960 14970 14980 14990 15000 15010 15020 15030 15040 15050 15060 15070 15080 15090 15100 15110 15120 15130 15140 15150 15160 15170 15180 15190 15200 15210 15220 15230 15240 15250 15260 15270 15280 15290 15300 15310 15320 15330 15340 15350 15360 15370 15380 15390 15400 15410 15420 15430 15440 15450 15460 15470 15480 15490 15500 15510 15520 15530 15540 15550 15560 15570 15580 15590 15600 15610 15620 15630 15640 15650 15660 15670 15680 15690 15700 15710 15720 15730 15740 15750 15760 15770 15780 15790 15800 15810 15820 15830 15840 15850 15860 15870 15880 15890 15900 15910 15920 15930 15940 15950 15960 15970 15980 15990 16000 16010 16020 16030 16040 16050 16060 16070 16080 16090 16100 16110 16120 16130 16140 16150 16160 16170 16180 16190 16200 16210 16220 16230 16240 16250 16260 16270 16280 16290 16300 16310 16320 16330 16340 16350 16360 16370 16380 16390 16400 16410 16420 16430 16440 16450 16460 16470 16480 16490 16500 16510 16520 16530 16540 16550 16560 16570 16580 16590 16600 16610 16620 16630 16640 16650 16660 16670 16680 16690 16700 16710 16720 16730 16740 16750 16760 16770 16780 16790 16800 16810 16820 16830 16840 16850 16860 16870 16880 16890 16900 16910 16920 16930 16940 16950 16960 16970 16980 16990 17000 17010 17020 17030 17040 17050 17060 17070 17080 17090 17100 17110 17120 17130 17140 17150 17160 17170 17180 17190 17200 17210 17220 17230 17240 17250 17260 17270 17280 17290 17300 17310 17320 17330 17340 17350 17360 17370 17380 17390 17400 17410 17420 17430 17440 17450 17460 17470 17480 17490 17500 17510 17520 17530 17540 17550 17560 17570 17580 17590 17600 17610 17620 17630 17640 17650 17660 17670 17680 17690 17700 17710 17720 17730 17740 17750 17760 17770 17780 17790 17800 17810 17820 17830 17840 17850 17860 17870 17880 17890 17900 17910 17920 17930 17940 17950 17960 17970 17980 17990 18000 18010 18020 18030 18040 18050 18060 18070 18080 18090 18100 18110 18120 18130 18140 18150 18160 18170 18180 18190 18200 18210 18220 18230 18240 18250 18260 18270 18280 18290 18300 18310 18320 18330 18340 18350 18360 18370 18380 18390 18400 18410 18420 18430 18440 18450 18460 18470 18480 18490 18500 18510 18520 18530 18540 18550 18560 18570 18580 18590 18600 18610 18620 18630 18640 18650 18660 18670 18680 18690 18700 18710 18720 18730 18740 18750 18760 18770 18780 18790 18800 18810 18820 18830 18840 18850 18860 18870 18880 18890 18900 18910 18920 18930 18940 18950 18960 18970 18980 18990 19000 19010 19020 19030 19040 19050 19060 19070 19080 19090 19100 19110 19120 19130 19140 19150 19160 19170 19180 19190 19200 19210 19220 19230 19240 19250 19260 19270 19280 19290 19300 19310 19320 19330 19340 19350 19360 19370 19380 19390 19400 19410 19420 19430 19440 19450 19460 19470 19480 19490 19500 19510 19520 19530 19540 19550 19560 19570 19580 19590 19600 19610 19620 19630 19640 19650 19660 19670 19680 19690 19700 19710 19720 19730 19740 19750 19760 19770 19780 19790 19800 19810 19820 19830 19840 19850 19860 19870 19880 19890 19900 19910 19920 19930 19940 19950 19960 19970 19980 19990 20000 20010 20020 20030 20040 20050 20060 20070 20080 20090 20100 20110 20120 20130 20140 20150 20160 20170 20180 20190 20200 20210 20220 20230 20240 20250 20260 20270 20280 20290 20300 20310 20320 20330 20340 20350 20360 20370 20380 20390 20400 20410 20420 20430 20440 20450 20460 20470 20480 20490 20500 20510 20520 20530 20540 20550 20560 20570 20580 20590 20600 20610 20620 20630 20640 20650 20660 20670 20680 20690 20700 20710 20720 20730 20740 20750 20760 20770 20780 20790 20800 20810 20820 20830 20840 20850 20860 20870 20880 20890 20900 20910 20920 20930 20940 20950 20960 20970 20980 20990 21000 21010 21020 21030 21040 21050 21060 21070 21080 21090 21100 21110 21120 21130 21140 21150 21160 21170 21180 21190 21200 21210 21220 21230 21240 21250 21260 21270 21280 21290 21300 21310 21320 21330 21340 21350 21360 21370 21380 21390 21400 21410 21420 21430 21440 21450 21460 21470 21480 21490 21500 21510 21520 21530 21540 21550 21560 21570 21580 21590 21600 21610 21620 21630 21640 21650 21660 21670 21680 21690 21700 21710 21720 21730 21740 21750 21760 21770 21780 21790 21800 21810 21820 21830 21840 21850 21860 21870 21880 21890 21900 21910 21920 21930 21940 21950 21960 21970 21980 21990 22000 22010 22020 22030 22040 22050 22060 22070 22080 22090 22100 22110 22120 22130 22140 22150 22160 22170 22180 22190 22200 22210 22220 22230 22240 22250 22260 22270 22280 22290 22300 22310 22320 22330 22340 22350 22360 22370 22380 22390 22400 22410 22420 22430 22440 22450 22460 22470 22480 22490 22500 22510 22520 22530 22540 22550 22560 22570 22580 22590 22600 22610 22620 22630 22640 22650 22660 22670 22680 22690 22700 22710 22720 22730 22740 22750 22760 22770 22780 22790 22800 22810 22820 22830 22840 22850 22860 22870 22880 22890 22900 22910 22920 22930 22940 22950 22960 22970 22980 22990 23000 23010 23020 23030 23040 23050 23060 23070 23080 23090 23100 23110 23120 23130 23140 23150 23160 23170 23180 23190 23200 23210 23220 23230 23240 23250 23260 23270 23280 23290 23300 23310 23320 23330 23340 23350 23360 23370 23380 23390 23400 23410 23420 23430 23440 23450 23460 23470 23480 23490 23500 23510 23520 23530 23540 23550 23560 23570 23580 23590 23600 23610 23620 23630 23640 23650 23660 23670 23680 23690 23700 23710 23720 23730 23740 23750 23760 23770 23780 23790 23800 23810 23820 23830 23840 23850 23860 23870 23880 23890 23900 23910 23920 23930 23940 23950 23960 23970 23980 23990 24000 24010 24020 24030 24040 24050 24060 24070 24080 24090 24100 24110 24120 24130 24140 24150 24160 24170 24180 24190 24200 24210 24220 24230 24240 24250 24260 24270 24280 24290 24300 24310 24320 24330 24340 24350 24360 24370 24380 24390 24400 24410 24420 24430 24440 24450 24460 24470 24480 24490 24500 24510 24520 24530 24540 24550 24560 24570 24580 24590 24600 24610 24620 24630 24640 24650 24660 24670 24680 24690 24700 24710 24720 24730 24740 24750 24760 24770 24780 24790 24800 24810 24820 24830 24840 24850 24860 24870 24880 24890 24900 24910 24920 24930 24940 24950 24960 24970 24980 24990 25000 25010 25020 25030 25040 25050 25060 25070 25080 25090 25100 25110 25120 25130 25140 25150 25160 25170 25180 25190 25200 25210 25220 25230 25240 25250 25260 25270 25280 25290 25300 25310 25320 25330 25340 25350 25360 25370 25380 25390 25400 25410 25420 25430 25440 25450 25460 25470 25480 25490 25500 25510 25520 25530 25540 25550 25560 25570 25580 25590 25600 25610 25620 25630 25640 25650 25660 25670 25680 25690 25700 25710 25720 25730 25740 25750 25760 25770 25780 25790 25800 25810 25820 25830 25840 25850 25860 25870 25880 25890 25900 25910 25920 25930 25940 25950 25960 25970 25980 25990 26000 26010 26020 26030 26040 26050 26060 26070 26080 26090 26100 26110 26120 26130 26140 26150 26160 26170 26180 26190 26200 26210 26220 26230 26240 26250 26260 26270 26280 26290 26300 26310 26320 26330 26340 26350 26360 26370 26380 26390 26400 26410 26420 26430 26440 26450 26460 26470 26480 26490 26500 26510 26520 26530 26540 26550 26560 26570 26580 26590 26600 26610 26620 26630 26640 26650 26660 26670 26680 26690 26700 26710 26720 26730 26740 26750 26760 26770 26780 26790 26800 26810 26820 26830 26840 26850 26860 26870 26880 26890 26900 26910 26920 26930 26940 26950 26960 26970 26980 26990 27000 27010 27020 27030 27040 27050 27060 27070 27080 27090 27100 27110 27120 27130 27140 27150 27160 27170 27180 27190 27200 27210 27220 27230 27240 27250 27260 27270 27280 27290 27300 27310 27320 27330 27340 27350 27360 27370 27380 27390 27400 27410 27420 27430 27440 27450 27460 27470 27480 27490 27500 27510 27520 27530 27540 27550 27560 27570 27580 27590 27600 27610 27620 27630 27640 27650 27660 27670 27680 27690 27700 27710 27720 27730 27740 27750 27760 27770 27780 27790 27800 27810 27820 27830 27840 27850 27860 27870 27880 27890 27900 27910 27920 27930 27940 27950 27960 27970 27980 27990 28000 28010 28020 28030 28040 28050 28060 28070 28080 28090 28100 28110 28120 28130 28140 28150 28160 28170 28180 28190 28200 28210 28220 28230 28240 28250 28260 28270 28280 28290 28300 28310 28320 28330 28340 28350 28360 28370 28380 28390 28400 28410 28420 28430 28440 28450 28460 28470 28480 28490 28500 28510 28520 28530 28540 28550 28560 28570 28580 28590 28600 28610 28620 28630 28640 28650 28660 28670 28680 28690 28700 28710 28720 28730 28740 28750 28760 28770 28780 28790 28800 28810 28820 28830 28840 28850 28860 28870 28880 28890 28900 28910 28920 28930 28940 28950 28960 28970 28980 28990 29000 29010 29020 29030 29040 29050 29060 29070 29080 29090 29100 29110 29120 29130 29140 29150 29160 29170 29180 29190 29200 29210 29220 29230 29240 29250 29260 29270 29280 29290 29300 29310 29320 29330 29340 29350 29360 29370 29380 29390 29400 29410 29420 29430 29440 29450 29460 29470 29480 29490 29500 29510 29520 29530 29540 29550 29560 29570 29580 29590 29600 29610 29620 29630 29640 29650 29660 29670 29680 29690 29700 29710 29720 29730 29740 29750 29760 29770 29780 29790 29800 29810 29820 29830 29840 29850 29860 29870 29880 29890 29900 29910 29920 29930 29940 29950 29960 29970 29980 29990 30000 30010 30020 30030 30040 30050 30060 30070 30080 30090 30100 30110 30120 30130 30140 30150 30160 30170 30180 30190 30200 30210 30220 30230 30240 30250 30260 30270 30280 30290 30300 30310 30320 30330 30340 30350 30360 30370 30380 30390 30400 30410 30420 30430 30440 30450 30460 30470 30480 30490 30500 30510 30520 30530 30540 30550 30560 30570 30580 30590 30600 30610 30620 30630 30640 30650 30660 30670 30680 30690 30700 30710 30720 30730 30740 30750 30760 30770 30780 30790 30800 30810 30820 30830 30840 30850 30860 30870 30880 30890 30900 30910 30920 30930 30940 30950 30960 30970 30980 30990 31000 31010 31020 31030 31040 31050 31060 31070 31080 31090 31100 31110 31120 31130 31140 31150 31160 31170 31180 31190 31200 31210 31220 31230 31240 31250 31260 31270 31280 31290 31300 31310 31320 31330 31340 31350 31360 31370 31380 31390 31400 31410 31420 31430 31440 31450 31460 31470 31480 31490 31500 31510 31520 31530 31540 31550 31560 31570 31580 31590 31600 31610 31620 31630 31640 31650 31660 31670 31680 31690 31700 31710 31720 31730 31740 31750 31760 31770 31780 31790 31800 31810 31820 31830 31840 31850 31860 31870 31880 31890 31900 31910 31920 31930 31940 31950 31960 31970 31980 31990 32000 32010 32020 32030 32040 32050 32060 32070 32080 32090 32100 32110 32120 32130 32140 32150 32160 32170 32180 32190 32200 32210 32220 32230 32240 32250 32260 32270 32280 32290 32300 32310 32320 32330 32340 32350 32360 32370 32380 32390 32400 32410 32420 32430 32440 32450 32460 32470 32480 32490 32500 32510 32520 32530 32540 32550 32560 32570 32580 32590 32600 32610 32620 32630 32640 32650 32660 32670 32680 32690 32700 32710 32720 32730 32740 32750 32760 32770 32780 32790 32800 32810 32820 32830 32840 32850 32860 32870 32880 32890 32900 32910 32920 32930 32940 32950 32960 32970 32980 32990 33000 33010 33020 33030 33040 33050 33060 33070 33080 33090 33100 33110 33120 33130 33140 33150 33160 33170 33180 33190 33200 33210 33220 33230 33240 33250 33260 33270 33280 33290 33300 33310 33320 33330 33340 33350 33360 33370 33380 </p>		

total amount of oxygen absorbed by the charge per unit time. The amount of oxygen absorbed per unit weight of the charge and per unit time, however, is decreased with increasing total weight of the charge, as the ratio of the surface of contact between the charge and the furnace gases per unit weight is decreased. In this connection it is pointed out in conclusion that it is more correct to express the oxidizing capacity of the open-hearth furnace in terms of the amount of oxygen absorbed per unit weight of the charge per unit time, rather than in terms of units of oxygen absorbed by the whole charge during the whole of the period or during one hour of the melting process.

ACC NR: AP6032237 SOURCE CODE: UR/0023/66/000/003/0408/0415

AUTHOR: Epshteyn, A. -- Epstein, A.

ORG: Institute of Thermophysics and Electrophysics, Academy of Sciences
Estonian SSR (Institut termofiziki i elektrofiziki Akademii nauk Estonskoy SSR)

TITLE: Effects of thermal stratification and dynamic nonuniformity of the
transverse flow on the path of a round turbulent jet

SOURCE: AN EstSSR. Izvestiya. Seriya fiziko-matematicheskikh i tekhnicheskikh
nauk, no. 3, 1966, 408-415

TOPIC TAGS: turbulent jet, flow, cross wind, round turbulent jet, transverse
flow

ABSTRACT: The paper deals with the problem of the effects of dynamic and
thermal nonuniformity of a cross-wind on the path of a round turbulent jet. Analyti-
cal expressions are obtained for a buoyant jet in thermally stratified cross-wind
(stable or unstable) with constant density or potential temperature gradient but
uniform wind velocity profile and for a pure dynamic jet in cross-wind with a para-
bolic velocity profile. Orig. art. has: 3 figures and 31 formulas. [Author's
abstract]

SUB CODE: 20/SUBM DATE: 18Jan66/ORIG REF: 003/

Card 1/1

EPSHTEYN, A.

Laboratory in repair enterprises. Grazhd.av. 13 no.2:26-28 P '56.

(MLBA 9:5)

(Aeronautical laboratories)

L 29787-66 EWT(1)/EWP(m)

ACC NR: AP6014860

SOURCE CODE: UR/0023/65/000/004/0588/0595

AUTHOR: Ivanov, Yu. -- Ivanov, J.; Epshteyn, A. -- Epstein, A.

53
B

ORG: Institute of Thermophysics and Electrophysics, Academy of Sciences, Estonian SSR
(Institut termofiziki i elektrofiziki Akademii nauk Estonskoy SSR)

TITLE: Experimental investigation of a heated circular jet in a free transverse flow

SOURCE: AN EstSSR. Izvestiya. Seriya fiziko-matematicheskikh i tekhnicheskikh nauk, no. 4, 1965, 588-595

TOPIC TAGS: jet flow, transverse flow, turbulent flow, anemometer, *air flow, shock tube/ETAM-3A anemometer*

ABSTRACT: Some results are given from an experimental investigation of a circular heated jet flowing at right angles to a horizontal free transverse stream under conditions where the effect of lift on behavior of the jet must be taken into account. A transverse air-flow was set up in an open shock tube 700 mm in diameter. An ETAM-3A hot-wire anemometer was used for measuring the velocity fields in the main stream. A separate fan was used for blowing a preheated jet perpendicularly upward through the stream. A chromel-alumel thermocouple was used for measuring the temperature fields. The effect of lift was studied by changing the initial diameter and temperature excess of the jet at given values of the hydrodynamic parameter $\frac{T_w v^2}{T_r W^2}$. It was found that the

Card 1/2

L 29787-66

ACC NR: AP6014860

initial diameter and temperature excess have a considerable effect on the path of the jet. It is shown that the width of the jet is a linear function of its altitude above the virtual point source. Orig. art. has: 7 figures.

SUB CODE: 20/ SUBM DATE: 22Jun65/ ORIG REF: 002/ OTH REF: 002

Card 2/2 H/

IPSHTEN, A.

IPSHTEN, A. (Pol'skaya Narodnaya Respublika).

~~_____~~
Gas industry in Poland. Gaz. prom. no.2:49-53 P '58. (MIRA 11:2)
(Poland--Gas industry)

EPSHTEYN, A.

Temporary transfere to other work. Sots.trud 5 no.3:130-135
Mr '60. (MIRA 13:6)

(Job descriptions)
(Labor laws and legislation)

EPSTEYN, A.

Benifits for workers in the Far North and adjacent regions. Sots.
trud 5 no.8:136-146 Ag '60. (MIRA 13:11)
(Russia, Northern--Labor laws and legislation)
(Russia, Northern--Wages)

EPSHTEYN, A.

Approval of the trade-union committee is obligatory. Sob.
profsoiuzy 18 no.3:47 F '62. (MIRA 15:3)

1. Starshiy konsul'tant pravovogo sektora Vsesoyuznogo tsentral'nogo
soveta professional'nykh soyuzov.
(Employees, Dismissal of)

EPSHTEYN, A.

Formulating the reasons for dismissal from work. Okhr.truda i
sots.strakh. 6 no.1341-42 Ja '63. (MIRA 16:1)
(Employees, Dismissal of)

EPSHTEYN, A. A., Dr Tech Sci.,

"Determination of the Amount of Gas Needed to Maintain a Cavern Behind a Body Moving at Small Froude Numbers."

Papers Presented at the Tenth Scientific-Technical Conference on Ship Theory
(Sudostoryeniye, No 4, 1960)

TYULENEV, S.; EPSHTEYN, A.

Ways to lower the consumption of metal and the estimated cost of industrial construction through planning. Prom.stroi.i inzh. soor. 4 no.5:5-9 S-O '62. (MIRA 16:1)

1. Upravlyayushchiy Dnepropetrovskim filialom Gosudarstvennogo proyektного instituta po proyektirovaniyu, issledovaniyu i ispytaniyu stal'nykh konstruktsiy i mostov (for Tyulenev).
2. Glavnyy inzh. Dnepropetrovskogo filiala Gosudarstvennogo proyektного instituta po proyektirovaniyu, issledovaniyu i ispytaniyu stal'nykh konstruktsiy i mostov (for Epshteyn).

(Metals)

(Industrial plants—Cost of construction)

EPSh TEXN, A.A.

Activity of the Scientific-Techical Society of

the Shipbuilding Industry (Society formed at the
First Scientific-Technical Conference on Ship Theory

September, 1950

G. A. Frenkel, Chief Tech Sci
L. I. Kharin, Dr. Tech Sci

Topics presented:

G. B. Tsvetkov, Engineer, "Investigation of the Additional
Resistance of Boats and Appliances in a Ship Hull."

B. D. Chudakov, Chief Tech Sci, "The Influence of Hull and Stern
Resistance on Ship Speed."

P. L. Litvinov, Engineer, "Calculation of Resistance Force
Propellers."

Yu. D. Ponomarev, Engineer, "Measurements of the Resistance Force Acting
on a Model of a Diesel Propelling Device."

A. A. Berezin, Chief Tech Sci, "Hydrodynamics of Controllable
Flaps Propellers."

Yu. B. Kuznetsov, Engineer, V. E. Zhurav, Engineer, "Study
of the Characteristics of Four-Blade Screw Propellers in Direct
Flow."

A. A. Zhurav, Dr. Tech Sci, "Determination of the Amount of Gas
Escaped from a Screw in a Direct Flow at High Speeds"
and the Influence of Gas on the Resistance of the Hull."

EPSHTEIN, A.

Through the participation of a factory, plant and local committee
only. Sov. profsoiuzy 17 no.23:36 D '61. (MIRA 14:12)
(Labor disputes) (Trade unions)

EPSHTEYN, A.A.; AVAZHANSKIY, Yu.S.; IBRAGIMOVA, Ye.M.; PETROV, Yu.S.

Study of an electric wireless communication channel between
the well botoom and the surface. Mash. i neft. obor. no.5:
28-33 '64. (MIRA 17:6)

1. AzNIiburneft'.

IVANOV, Yu.; EPSHTEYN, A.

Experimental study of a superheated circular jet in a free transverse stream. Izv. AN Est. SSR. Ser. fiz.-mat. i tekhn. nauk 14 no. 4:588-595 '65 (MIRA 19:2)

1. Institut termofiziki i elektrofiziki AN Estonskoy SSR.
Submitted June 22, 1965.

EPSHTEYN, A. A.

DECEASED

1963/1

c. 1961

MEDICINE
(Disease)

see ILC

EPSHTEIN, A. B.

PA 233T17

USSR/Medicine, Veterinary - Swine Erysipelas Oct 52

"Depot-Forming Erysipelas Vaccine of Swine of the
Dnepropetrovsk Biological Factory," V. P. Merkulov,
A. B. Epshtein

"Veterinariya" Vol 29, No 10, pp 27, 28

A depot-forming vaccine for erysipelas of swine which
can be stored in excess of 6 months and is prepd from
Matrix II of Konev's vaccine of the Dnepropetrovsk
Biol Plant is a reliable prepn for the control of
bacillary erysipelas of swine. This vaccine possesses
high immunological properties. It creates a depot in
the area where it is inoculated, resulting in reduc-
tion to a min of the number of complications.

233T17

EPSHTEYN, A. B.

EPSHTEYN, A. B.: "The practical use of the deposition of vaccines against swine erysipelas." Min Agriculture USSR. Khar'kov Veterinary Inst. Khar'kov, 1956
(Dissertation for the Degree of Candidate in Veterinary Sciences)

So: Knizhna Letopis', No 17, 1956

EPSHTEYN, A.B. (Kiyev)

Two cases of candidous vulvovaginitis and balanoposthitis in married couples. Vrach.delo no.9:131-132 S '62. (MIRA 15:8)

1. Koshno-venerologicheskoye otdeleniye 2-y bol'nitsy Moskovskogo rayona.

(GENERATIVE ORGANS---DISEASES) (MONILIASIS)

MERKULOV, V.P., kand.veterin.nauk; EPSHTEYN, A.B., kand.veterin.nauk

Use of precipitated vaccine against swine erysipelas. Veterinariia
40 no.7:31 J1 '63. (MIRA 16:8)

1. Gosudarstvennaya Dnepropetrovskaya biofabrika.
(Swine erysipelas--Preventive inoculation)

EPSHTEYN, A.B.

Results of compound treatment of male patients with trichomoniasis
in outpatient dispensaries. Vrach. delo no.3:138-139 M- '64.

(MIRA 17:4)

1. Dermatovenerologicheskoye otdeleniye vtoroy bol'nitsy
Moskovskogo rayona Kiyeva.

"APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00041212

APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00041212(

"APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00041212

AUTHORITY: ~~CONFIDENTIAL~~, A. B.

CONFIDENTIAL
CONFIDENTIAL
CONFIDENTIAL

APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R00041212(

EPSTEIN, A.D., inzhener; POLYAKOV, D.G., inzhener, redaktor; POPOVA,
S.M., tekhnicheskii redaktor.

Testing sliding liquid friction bearings for rolling-mill
machinery. Nauchno-tekhnicheskaya informatsiya no. 24:3-45

154.

(MIRA 7:11)

(Rolling-mill machinery)

AUTHOR: Epshteyn, A.D., Engineer 28-3-20/33

TITLE: Projects for Standards "Drawings in Machinebuilding" (Proyekty standartov "Chertezhi v mashinostroyeni")

PERIODICAL: Standartizatsiya, 1957, # 3, May-June, p 66-74 (USSR)

ABSTRACT: The essential aspects of the subject standard projects, 16 in all, are published with an invitation for discussion. The projects were worked out by TsKB of TsNIITMASH with collaboration of the ministries and the Bureau of Interchangeability of MSiIP. The corresponding standards of the Soviet satellites and other countries, and the materials of the ISO/TC 10 were studied in the process of work. The published suggestions concern the drawing scales, letter designations (for thickness, gear pitch, weight, etc.), projections and cross sections, hatching rules, indication of dimensions and dimension limits ("min" and "max" to replace the conventional indication of tolerances), designations for thread, springs, rivets, bolts and the like, drawing of gears, indication of surface finish etc. It is stated that the experience of the industry and suggestions made by the Tsentroenergomontazh, TsKBN and of the Novo-Kramatorsk Machinebuilding Plant (in Elektrostal') have also been taken into consideration in the suggested projects. Professor V.O. Gordon is

Card 1/2

Projects for Standards "Drawings in Machinebuilding"

28-3-20/33

referred to in connection with the standard for location of projections on drawings and the rules for cross sections (ГОСТ 3453-52) which is now to be replaced by the standard "Images: Conventions and Simplifications". All conventions and simplified designations accepted in the projects are shown by drawings. It is requested that suggestions and remarks are to be addressed to the Committee of Standards, Measures and Measuring Devices at the Council of Ministers of the USSR (Machinebuilding Department), Moskva, B. Kaluzhskaya, d. 96.

There are 14 figures.

ASSOCIATION: TsKB of Metallurgy Machinebuilding TsNIITMASH (TsKB metallurgicheskogo mashinostroyeniya TsNIITMASH)

AVAILABLE: Library of Congress

Card 2/2

*Tsentral'nyy Konstruktorskoye byuro metallurgicheskogo
mashinostroyeniya TsNIITMASH Tsentral'nyy nauchno-issledovatel'skiy
inst. tekhn. i mashinostroyeniya.*

AUTHOR: Epshteyn, A.D., Engineer SOV/28-58-6-4/34
TITLE: Normalization in Rolling Machine Building (Normalizatsiya v prokatnom mashinostroyenii)
PERIODICAL: Standartizatsiya, 1958, Nr 6, pp 18-21 (USSR)
ABSTRACT: Metallurgic machine building has an individual character. More than 1,000 different types of machines are produced in this field, among them more than 600 for rolling mills. The output of rolling equipment is to reach 200 to 220,000 tons in 1965. The production of some machine parts can be mechanized, if these parts are standardized and used in several machines of this branch. In recent years electropneumatic distributors, pneumatic cylinders, liquid friction bearings, gears, springs, etc., have been standardized (Figures 1 and 2). In the next few years the standardization of tube-drawing machines with a drawing power of 15 tons and higher is planned, as well as machines for the cold rolling of tubes, wire-drawing and pipe-welding machines. General

Card 1/2

Normalization in Rolling Machine Building SOV/28-58-6-4/34

equipment, such as reduction gears, cog wheels, hydraulic and pneumatic apparatuses, should also be standardized as soon as possible. The nomenclature of the parts should be standardized and unified. There are 2 diagrams.

ASSOCIATION: Tsentral'noye konstruktorskoye byuro metallurgicheskogo mashinostroyeni TsNIITMASH (Central Designing Bureau of Metallurgic Machine Building of the TsNIITMASH)

Card 2/2

L 25553-66 EWT(d)/FSS-2/EWT(1)/EEC(k)-2 WR

ACC NR: AM6006949

Monograph

UR/

64
59
B11

Epshteyn, Aron Grigor'yevich

Super-high frequency measuring apparatus ^{gm} (Izmeritel'naya apparatura sverkhvysokikh chastot) Leningrad, Izd-vo "Sudostroyeniye," 1965. 250 p. illus., biblio. Textbook for higher technical institutions of radiotechnical specialties. 12,400 copies printed.

TOPIC TAGS: SHF, circuit design, coupling circuit, measuring apparatus, electronic measurement, microwave attenuator, phase shifter, power meter, spectrum analyzer, signal generator, radar equipment, radar calibration

PURPOSE AND COVERAGE: This textbook is intended for students in shipbuilding and radio engineering technicians specializing in the production and operation of radar equipment. It may also be useful to students in schools of higher education and to radio specialists. The book describes measuring equipment in detail, as well as connecting, junction, and matching elements used for the adjustment and testing of shf radar installations. Physical processes taking place in the operation of the equipment and the individual elements of uhf channels are discussed. Special attention is paid to the design of instruments and individual units. Ya. I. Berman participated in editing the book, and V. D. Lande,

Card 1/4

UDC: 681.2

L 25553-66

ACC NR: AM6006949

L. V. Bel'skaya, T. M. Zhvalevskaya, Z. S. Shreyder, G. N. Nikandrova
and V. G. Osadchenko provided comments and advice.

TABLE OF CONTENTS:

Foreword -- 3

Introduction -- 5

Ch. I. Connecting elements of shf circuits -- 9

1. Basic parameters of shf circuits -- 9
2. Hf connecting devices for coaxial and waveguide transmission lines -- 11
3. Junction sections in transmission lines -- 16
4. Junctions between waveguides and coaxial lines -- 26

Ch. II. Shf matching elements -- 33

5. Matching of transmission lines -- 33
6. Matched absorbing loads -- 34
7. Matching hf elements -- 50

Ch. III. Elements of shf measuring circuits -- 66

Card 2/4

L 25553-66

ACC NR: AM6006949

- 8. Power dividers -- 66
- 9. Attenuators -- 75
- 10. Directional couplers -- 108
- 11. Phase inverters -- 112
- 12. Reactances -- 116
- 13. Detector sections -- 119

Ch. IV. Reflection-coefficient meters -- 124

- 14. General information -- 124
- 15. Lecher lines -- 127
- 16. Reflection-coefficient meters and impedometers -- 135

Ch. V. Wavemeters -- 143

- 17. General information -- 143
- 18. Resonance wavemeters -- 144
- 19. Heterodyne wavemeters -- 154

Ch. VI. Power meter -- 162

- 20. General information -- 162
- 21. High-power meters -- 164
- 22. Low-power meters -- 168

Cord 3/4

REF ID: A6606949

ACC NR: AM6006949

Ch. VII. Spectrum analyzers (spectrometers) -- 177

23. General information -- 180

24. Principles of spectral analysis devices -- 180

25. Design and construction of spectral analysis equipment -- 183

Ch. VIII. Generators used in measurements -- 197

26. The design principle of a measuring generator -- 197

27. Signal generators -- 205

28. Standard-signal generators -- 214

29. Noise-signal generators -- 221

Ch. IX. Radar parameter checking equipment -- 225

30. Radar testers -- 225

31. Echo boxes -- 241

Ch. X. Field-strength measuring equipment -- 245

32. General information -- 245

33. Field-strength meters -- 246

Appendix -- 248

Bibliography -- 249

SUB CODE: 09/ SUBM DATE: 07Sep55/ ORIG REF: 016

Card 7/4 JVR

EPSHTEYN, Abram Grigor'yevich; KRYUCHKOV, A.M., red.; FREGER, D.P.,
red. izd-va; BELOGUROVA, I.A., tekhn. red.

[Experience in the design and manufacture of modern furniture
of the Lithuanian Economic Council] Opyt proektirovaniia i pro-
izvodstva sovremennoi mebeli v Litovskom sovnarkhoze. Leningrad,
1962. 13 p. (Leningradskii dom nauchno-tekhnicheskoi propagandy
Obmen peredovym opytom. Seriia: Derevoobrabatyvaiushchaia pro-
myshlennost', no.6) (MIRA 15:12)

(Lithuania--Furniture)

LYSENKO, V.G., kand. 1st. nauk; EPSHTEYN, A.I., kand. 1st. nauk;
CHIRKOV, N.P., kand. 1st. nauk; KIYAN, Ye.A., kand. 1st.
nauk; PLUGATAREV, P.G., kand. 1st. nauk; POBEDINA, Ye.N.,
kand. 1st. nauk; DRONOVA, A.I., kand. 1st. nauk; BLOKH,
B.A., kand. 1st. nauk; VORONINA, V.M., red.; LIMANOVA,
M.I., takhn. red.

[Outline history of the Kharkov Tractor Plant, 1931-1961]
Ocherk istorii Khar'kovskogo traktornogo zavoda im. Ordo-
nikidze, 1931-1961. Khar'kov, Khar'kovskoe knizhnoe izd-
vo, 1962. 296 p. (MIRA 16:6)

(Kharkov--Tractor industry)

EPSHTEYN, A.I.

Determining the losses of snow-water runoff in short-range forecasts
of maximum discharges for small rivers. Sbor. rab. po gidrol.
no.1:153-154 '60. (MIRA 15:2)

1. Upravleniye gidrometeorologicheskoy sluzhby TsChO.
(Runoff)

EPSTEIN, A.L.; KURASHOV, S.V.

Letters to the editor of Zhurnal nevropatologii i psikhatrii
imeni S.S.Korsakova." Zhur. nerv. i psikh. 54 no.9:812-815 S '54.
(SCHIZOPHRENIA) (MLRA 7:9)

EPSHTEYN, A.I.

Generator for extra-difficult operating conditions. Avt. prom. 30
no.10:31-32 0 '64. (MIRA 17:11)

1. Nauchno-issledovatel'skiy i eksperimental'nyy institut avtomobil'no-
nogo elektrooborudovaniya, karbyuratorov i priborov.

EPSTEIN, A.L., inshener.

The SSBM-728 polisher for marble and mosaic. Mekh. stroi. 4 no.9:
20 8 '47. (MIRA 9:2)

(Grinding and polishing)

EPSHTEIN, A. L. and KH. L. TROITSKII.

Stroitel'nye i pod''emno-transportnye mashiny. Dop. v kachestve
uchebnika dlia shkol masterov-desiantnikov. Moskva, Gos. izd-vo
stroit. lit-ry, 1950. 414 p. illus.

(Building, hoisting and conveying machinery.)

DLC: TH900.T73

SO: Manufacturing and Mechanical Engineering in the Soviet Union, Library of
Congress, 1953.

EPSHTEIN, A.L.

EPSHTEIN, A.L., inzhener, nauchnyy redaktor; BEKETOVA, Ye.M., redaktor; SMOL'YAKOVA, M.V., tekhnicheskiy redaktor.

[Cranes for multistory residential and municipal construction]
Kran'y dlia mnogoetazhnogo zhilishchnogo i grazhdanskogo stroitel'stva. [Nauchn. redaktor A.L.Epshtein] Moskva, Gos. izd-vo lit-ry po stroitel'stvu i arkhitekture, 1953. 142 p. (MIRA 7:8)

1. Moscow. Vsesoyuznyy nauchno-issledovatel'skiy institut organizatsii i mekhanizatsii stroitel'stva.
(Cranes, derricks, etc.)

EPSTEIN, A.L., inzhener.

New concrete mixer with a 250 liter capacity. Stroi. i dor. mashinostr.
1 no.12:8 D '56. (MIRA 10:1)

(Mixing machinery)

RAKOVSKIY, M.Ye.; VIKSLER, B.A.; KPSHTEYN, A.I.

Over-all automatization of steam electric power plants. Priboro-
stroenie no.10:1-5 0 '56. (MIRA 9:12)
(Automatic control) (Electric power plants)

EPSHTEYN, A.L., inshener.

Trailer for transporting excavators. Stroi.i dor.mashinostr.no.11:17
N '56. (MLRA 9:12)

(Excavating machinery--Transportation)
(Motortrucks--Trailers)

EPSHTAYN, A.L., inzhener.

**Basic problems in developing the building machinery industry. Stroi.
i dor.mashinostr.no.1:5-9 Ja '57. (MLRA 10:2)
(Building machinery industry)**

EPSTEYN, A.L.

TSOPIN, A.Ye., inzhener; EPSTEYN, A.L., inzhener.

Circuits for technical signalisation for a great number of
transmitted parameters. Priborostroyeniye no.9:22-23 S '57.
(MIRA 10:10)

(Electronic control)

DVORNIKOV, Ivan Semenovich; EPSHTEYN, Arkadiy L'vovich; NOVOSPASSKIY,
V.V., red.; SHADRINA, N.D., tekhn.red.

[Investigation of labor disputes by commissions and local
factory and plant workers' committees] Rassmotrenie trudo-
vykh sporov komissiyami i fabzavmestkomami. Izd-vo VTsSPS
Profizdat, 1958. 50 p. (MIRA 12:4)
(Labor disputes)

AUTHOR: Spokhteyn, A. L., Engineer

KV/119-58-9-11/18

TITLE: Instruments and Control Equipment at the All-Union Exhibition (Pribory i regulatory na Vsesoyuznoy promyshlennoy vystavke)

PERIODICAL: Priborostroyeniye, 1958, Nr 5, pp. 24-27 (USSR)

ABSTRACT: The following equipment shown has to be particularly mentioned:

1. A stand of **pneumatic equipment for controlling the AUS unified system**. Manufacturer: "Tizpribor" - Moscow. Items shown were: 4RB-32A control block, PS-37A signalling relay, BS-34A integrating relay, TsD-35A, TsD-36A program transmitter, PS-1 signal transmitter, PFE-6 pneumatic-electric vibrator, 1 RL-29A, 2 RL-29B, 3 RL-29C, 1 MP-30A, 2 MP-30V recording and indicating instruments.
2. BRU-21, BRU-11 **contactless control device**.
3. SIP-C1 interrupter. This is a timing relay, timing being done by steps, for various impulse durations from 1 to 110 sec., with impulse intervals 120, 60, 30, and 15 sec.
4. DTV-018 temperature measuring instrument for contact

Card 1/3

Instruments and Control Equipment at the All-Union
Exhibition.

SOV/119-58-9 11/18

measurements of rotating axles. Temperature range
30 - 150°C. Error of measurement below 3 %, time lag up
to 2 sec.

5. ~~TPR-22a~~ pneumatic spring thermometer for gases, liquids,
and vapors. Measuring range 40 - 300°C, accuracy class
1.5. Manufacturer: "Teplokontrol'" - Tatarskiy sovmarkhoz.
6. ~~MPSchh~~PI-54 pyrometric millivoltmeter. Measuring range
0 - 1100 C. ~~MPP~~-254 portable type combined with thermo-
couples. Manufacturer: Armyanskiy sovmarkhoz.
7. Automatic electronic signal bridge type ~~EMDS~~ - 26. Manu-
facturer: "Manometr", Moscow.
8. Novel electronic potentiometers with disc charts, pressure
gauges for precision measurements (class 0.5). Manufactu-
rer: "Manometr", Moscow.
9. PI 90-1 computer - summation puncher. Capacity 7200
punched cards per hour.
10. ~~ETsVP~~-1 electronic recording digital voltmeter for mea-
suring slowly varying or constant voltages. Accuracy of
measurement: ± 0.2 %.
11. Electronic boiler instruments. Manufacturer: "Komega".

Card 2/3

Instruments and Control Equipment at the All Union
Exhibition.

SOV/119-58-9-11/18

12. Pneumatic equipment and governors by the Central
Laboratory for Automatic Control (ZDA). A, DDP-333 pressure
transducer; DRP-330 consumption transducer; DTP-331
temperature transducer; DUP-332 level transducer.
RPL-338, RPP-339 governors; VPP-324 indicating instru-
ment, VPZ-344 recording instrument. RD-334 reducing de-
vice, FP-327 air filter, PDU-335 remote control panel.
13. Complete equipment for automatic electric control of a
heating plant. Manufacturer: Energopribor.

[Continued in abstract SOV/119-58-9-12/18]

Card 3/3

AUTHOR: Epshteyn, A. L., Engineer SOV/119-58-9-12/18

TITLE: Instruments and Control Equipment at the All-Union Exhibition
(Pribory i regulatory na Vsesoyuznoy promyshlennoy vystavke)
[Continued from abstract SOV/119-58-9-11/18]

PERIODICAL: Priborostroyeniye, 1958, Nr 9, pp. 24-27 (USSR)

ABSTRACT:

- 14. Recording pneumatic thickness gauge, class C,5.
Manufacturer: Branch of the Experimental Constructional Office for Automation in Voronezh.
- 15. Recording gas analyzer with infra-red absorption.
- 16. Level regulator RRUP -1. A radio-active preparation is used. Manufacturer: Giprokauchuk.
- 17. Concentration meter. Manufacturer: VNIG -Leningrad.
It is used for quantitative control of potassium standard in basic solutions.
- 18. Viscosimeter VSh -13.
- 19. Induction level meter UI-17. Manufacturer: All Union Research and Development Institute for Artificial Leather.
- 20. Portable hygrometer. Manufacturer: Fur Factory Nr 1, Leningrad. Principle: Measuring of the specific resistance of a leather surface as function of its humidity.

Card 1/1

8 (2), 24 (8)

AUTHOR: Epshteyn, A. L., Engineer

SOV/119-59-5-17/22

TITLE: New Signalizers for Temperature Deviations (Novyye signalizatory otkloneniya temperatur)

PERIODICAL: Priborostroyeniye, 1959, Nr 5, pp 29-30 (USSR)

ABSTRACT: The new signalizer of the type TS-018 which was developed by the "Termopribr" Design Office together with primary elements of the type DTR-018 is destined for signaling the exceeding of a certain given value of temperature. The temperature can be measured in one or several (up to 5) points. The principle of operation of this signalizer is based on the relay effect which occurs at a certain given temperature of the primary element. For signalizing the deviation of temperatures up to 200° (which cannot be measured by thermistors), the one-point signalizer of the type ST-1 was developed. It is destined for operation together with a resistance thermometer. The working condition of the device is indicated by the lighting-up of a pilot lamp. The most important technical data of the signalizer TS-018 are: range of given temperatures ... 65-75°C. error of temperature signaled ... ± 2°C, maximum wattage needed 15 w. This signalizer

Card 1/2

New Signalizers for Temperature Deviations

SOV/119-59-5-17/22

is fed by alternating current of 127 v and 50 cycles. The device is switched on by a tumbler switch. The most important technical data of the signalizer ST-1 are: range of given temperatures ... 100-200°C, error of signalization $\pm 3^{\circ}\text{C}$, wattage needed 15 w. There are 3 figures.

Card 2/2

28 (1)

AUTHORS:

Pikovskiy, E. A., Engineer,
Epshteyn, A. L., Engineer

06296

SOV/119-59-11-10/13

TITLE:

An Exposition Showing the Achievements of the National Economy of the USSR in 1959. New Means for the Automation of Industrial Processes

PERIODICAL:

Priborostryeniye, 1959, Nr 11, pp 23-28 (USSR)

ABSTRACT:

In this exposition the Samostoyatel'noye konstruktorsko-tekhnologicheskoye byuro biofizapparatury (SKTBBFA) Mosgorsovnarkhoza (Independent Technical Design Office for Biophysical Apparatus of the Mosgorsovnarkhoz) shows the electronic machine of the MARS-200 type for automatic temperature control and -regulation. The NIIShetmash Gosudarstvennogo Komiteta Soveta Ministrov SSSR po radioelektronike (Scientific Research Institute for Computers of the State Committee of the Council of Ministers of the USSR for Radioelectronics) shows an electronic recorder for central controls. A large number of new instruments are offered by the Spetsial'noye konstruktorskoye byuro po avtomatike v neftepererabotke i proizvodstve iskusstvennogo zhidkogo topliva (Special Design Office for Automatic Devices in

Card 1/3

06296

An Exposition Showing the Achievements of the National Economy of the USSR in 1959. New Means for the Automation of Industrial Processes SOV/119-59-11-10/13

Petroleum Processing and for the Production of Synthetic Liquid Fuels). Five apparatus are discussed. A number of new instruments are shown by the KB Tsvetmetavtomatika (Design Office Tsvetmetavtomatika). Seven instruments are discussed. The Proyektno-konstruktorskoye byuro Ministerstva stroitel'stva RSFSR (Planning and Design Office of the Ministry for Construction of the RSFSR) offers a number of new instruments. Three instruments are discussed. The Khar'kovskiy zavod KIP (Khar'kov Plant KIP) also shows a number of instruments, five of which are discussed. The same plant also manufactures a differential gauge. The Tsentral'nyy nauchno-issledovatel'skiy institut kompleksnoy avtomatizatsii (Central Scientific Research Institute for Comprehensive Automation) also shows instruments. The Tsentral'naya laboratoriya avtomatika Ministerstva stroitel'stva RSFSR (Central Laboratory for Automatic Devices of the Ministry for Construction of the RSFSR) shows instruments for electrochemical analysis. A number of transmitters were developed by the NIITeplopribor

Card 2/3

06296

An Exposition Showing the Achievements of the National Economy of the USSR in 1959. New Means for the Automation of Industrial Processes SOV/119-59-11-10/13

(Scientific Research Institute Teplopribor). The "Komega" Plant shows electronic-pneumatic control systems. The NIIKhimash (Scientific Research Institute for Chemical Engineering) shows two electronic units. The Khar'kovskiy zavod "Teploavtomat" (Khar'kov Works "Teploavtomat") also offers instruments, two of which are discussed. Several instruments of the Moskovskiy zavod "Manometr" (Moscow "Manometr" Factory) and the Tallinskiy zavod kontrol'no-izmeritel'nykh priborov (Tallin Factory of Control- and Measuring Instruments) are discussed. In the Kirgizskiy sovnarkhoz (Kirgiz sovnarkhoz) several electronic signaling devices were developed. The L'vovskiy zavod priborov (L'vov Factory of Instruments) offers several instruments manufactured in series. Furthermore, the instruments exhibited in the "Elektronika" pavilion are discussed, and instruments and regulating devices exhibited in the "Khlopok" pavilion and produced by the zavod "Ivmashpribor" ("Ivmashpribor" Works) are dealt with. In the pavilion of the petroleum industry telemechanic systems are on show. There are 22 figures.

Card 3/3

EPSHTEYN, A.L. (Dnepropetrovsk)

Problem of responsibility in crimes conditioned by situational
psychogenias. Probl.sud.psikh. 9:281-290 '61. (MIRA 15:2)
(Forensic psychiatry) (Capacity and disability)

S/080/62/035/006/005/013
D204/D307

AUTHORS: Kaplan, G. Ye., Uspenskaya, T. A. and Epshteyn, A.L.

TITLE: A study of the decomposition of monazite by sintering with calcium oxide

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 6, 1962, 1217-1222

TEXT: This is a continuation of earlier work, aimed at confirming that ultrafinely ground monazite concentrate may be decomposed with CaO at comparatively low temperatures. The grinding was carried out by a continuous, wet process, using a vibrating mill M-10 (M-10), constructed by VNIITISM. The effects of time and temperature, nature and quantity of fluoride activators added and the degree of grinding were studied. Preliminary experiments showed the specific surface area of monazite to be the dominant factor. Detailed studies showed that practically 100% decompositions could be achieved on material with a specific surface area of 12,000 cm²/g (~1 μ particles), with 7 - 10% of NaF added. Under the same con-

Card 1/2

S/080/62/035/006/005/013
D204/D307

A study of the ...

ditions CaF_2 gave only ~87 - 89% extraction of ThO_2 and R_2O_3 (R = rare earth). Concentrate of the same specific surface area and containing 10% NaF was wholly decomposed at 1000°C but only at 1100°C when NaF was replaced by CaF_2 . The same concentrate was fully decomposed after ~4 hrs at 1000°C if the product was leached out with a solvent containing HF. Thermographic analyses were carried out during the sintering to clarify the processes taking place. At lower temperatures the curves of CaO, monazite + CaO and monazite + CaO + NaF were very similar. At ~ 1000°C an exothermic reaction took place in mixtures of monazite, CaO and NaF or CaF_2 , which was ascribed to the decomposition reaction of monazite. There are 11 figures. ✓

SUBMITTED: May 15, 1961

Card 2/2

EPSHTEYN, Arkadiy L'vovich; STRUKOVA, L.G., red.

[Nonstaff employees] Neshtatnye rabotniki. Moskva,
Izd-vo "Iuridicheskaya literatura," 1964. 73 p.
(MIRA 18:1)

SAVEL'YEV, V.P.; KOVAL'SKAYA, A.V.; BERUKOV, F.V.; GALKIN, Yu.P.; KROKHOTIN, A.I.; SINEGUBKIN, V.V.; EPSHTEYN, A.L.; TSIRKIN, M.Z.; LAVRUSHINA, N.S.; G'BAREV, A.A.; KONTOROVICH, L.M.; KOROLEV, V.N.; USTIMENKO, I.L.; KURNAKOV, S.N.; POLUSHKIN, M.K.; LIBE, N.A.; IVANOV, N.P.; D'YACHENKO, G.I.; FILIPPOV, I.F.; KHUTORETSKIY, G.M.; VARTAN'YAN, G.P.; RUSOV, Ye.Kh.; BARKAN, L.Z.; KOLONSKAYA, L.M.; GORBATENKO, F.I.

Inventions. Energ. i elektrotekh. prom. no.4:39 C-D '64.
(MIRA 18:3)

L 24194-66 ENT(m)/ENP(t) LJP(c) JD/JG
ACC NR: AP6013284 SOURCE CODE: UR/0413/66/000/008/0080/0080

INVENTOR: Epshteyn, A. L.; Izhvanov, L. A.; Korolev, Yu. M.; Stelvarov, V. I.;
Pobedash, N. V. 36-
43

ORG: none

TITLE: Method of extracting molybdenum from the gaseous phase. Class 40,
No. 180800 18 27

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 8, 1966, 80

TOPIC TAGS: molybdenum, molybdenum extraction

ABSTRACT: This Author Certificate introduces a method of extracting molybdenum from
the gaseous phase with deposition of compact molybdenum on a heated substrate. To
reduce the cost of extraction, molybdenum hexafluoride is used as the initial mate-
rial. [ND]

SUB CODE: 13, 11/ SUBM DATE: 17Aug64/ ATD PRESS: 4245-

Card 1/1 11/12 UDC: 669.283

ACC NR: AP7002601

(A)

SOURCE CODE: UR/0413/66/000/023/0108/0108

INVENTORS: Epshteyn, A. L.; Sinegubkin, V. V.

ORG: none

TITLE: An ignition distributor for internal combustion engines. Class 46, No. 189250

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 23, 1966, 108

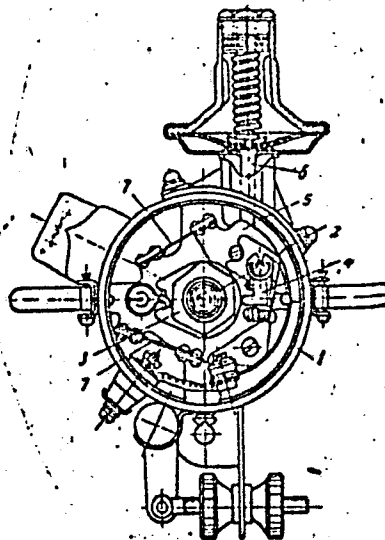
TOPIC TAGS: engine component, engine ignition system, internal combustion engine component

ABSTRACT: This Author Certificate presents an ignition distributor for internal combustion engines with a vacuum corrector. The distributor contains a casing with an arbor mounted in the casing bearings. The arbor carries a cam interacting with an interrupter placed on a movable plate. This plate is connected to the drive of the vacuum corrector and (through flat springs) to the casing (see Fig. 1). To diminish plate vibrations and to maintain a constant spacing between the points of the interrupter, the plate is connected to the casing through two springs of different lengths. These springs are placed on different sides of the cam and are fixed, respectively, to the casing and to the plate. The distance between the points at which the springs are fixed to the casing is equal to or greater than the distance between the fixing points on the casing.

UDC: 621.43.048.2

ACC NR: AP7002601

Fig. 1. 1 - casing; 2 - arbor; 3 - cam;
4 - interrupter; 5 - movable plate;
6 - drive of the vacuum corrector;
7 - springs



Orig. art. has: 1 figure.

SUB CODE: 21/ SUBM DATE: 22Mar62

EPSHTEIN, A. M.

The electrolysis worker in alumium plants Sverdlovsk, Gos. nauchno-tekhn. izd-vo
lit-ry po chernoi i tsvetnoi metallurgii, 1950. 189 p. (51-18509)

TN775.E6

EPSHTEYN, A-M.

PHASE I

TREASURE ISLAND BIBLIOGRAPHICAL REPORT

AID 422 - I

BOOK

Call No.: TN775.K37

Authors: MUZNETSOV, S. I. and EPSHTEYN, A. M.

Full Title: ELECTROLYTIC PRODUCTION OF ALUMINUM

Transliterated Title: Elektroliticheskoye proizvodstvo aluminia

Publishing Data

Originating Agency: None

Publishing House: State Scientific and Technical Publishing House of Literature
on Ferrous and Nonferrous Metallurgy

No. pp.: 304

No. of copies: 4,000

Date: 1953

Editorial Staff

Appraiser: Rempel', S. I., Kand. of Chem. Sci.

The authors acknowledge the valuable suggestions made by
Prof. A. Kh. Benuni and Eng. B. I. Itsikson.

Text Data

Coverage: This is a handbook for foremen of electrolytic shops of aluminum plants. It contains a brief historical sketch of the development of the Soviet aluminum industry, and descriptions of fundamental principles of electrolytic reduction of aluminum, methods of production of alumina, fluoride salts and carbon materials, mounting and dismounting of electrolytic baths, organization of work in electrolytic shops, etc. Examples of simple technological calculations are given in the Appendix.

1/3

136-5-6/14

AUTHOR: Epshteyn, A.M.

TITLE: Increasing the current density in electrolyzers at the Dnepr Aluminium Works. (Povyshenie plotnosti toka na elektrolizerakh dneprovskogo alyuminievogo zavoda)

PERIODICAL: "Tsvetnye Metally" (Non-ferrous Metals), 1957, No.5, pp. 34 - 39 (U.S.S.R.)

ABSTRACT: From 1951 to 1956, the anodic current density in electrolyzers at the Dnepr Aluminium Works increased from 0.890 to 1.055 A/cm², the corresponding changes in the yield of metal with respect to current, in the daily productivity per bath and in (relative) annual productivity per electrolyzer operator, being from 85.06 to 88.04%, from 270.7 to 343.4 kg and from 100 to 207.3%, respectively. The achievement of these results (confirming the advantages of high current densities) and their applicability to other works are discussed after an indication of the importance of taking into account the cathodic as well as the anodic densities. A primary requirement for higher anodic current density to be beneficial is that the bath temperature should not rise and at the Dnepr Works this temperature was 957.2 °C in 1956 and 958.7 °C in 1953. Experience at the Works showed that sparking could be reduced advantageously

Card 1/2

Increasing the current density in electrolyzers at the
Dnepr Aluminium Works. (Cont.) 136-5-6/14

(contrary to opinions widely held by operators). To raise current density over 1.0 A/cm^2 experience of the Volkhov Works with more acid baths was utilized; by 1956, the cryolite ratio had been reduced to 2.27 with appropriate operational changes. While admitting that it may not be possible to raise current densities in larger electrolyzers to the extent reported, the author suggests that they are nevertheless too low; he invites discussion on Dnepr practice and ideas.

ASSOCIATION: Dneprovsk Aluminium Works (DAZ) in Zaporozh'ye

AVAILABLE:

Card 2/2

Dneprovskiy Aluminiumy zavod

EPSHTEYN, A.M., inzh.

Erecting reinforced concrete bridge arches across the
Yenisey River. Transp.stroi. 10 no.2:20-23 F '60.
(MIRA 13:5)

(Yenisey River--Bridges, concrete)

BELYY, V.K., inzh.; EPSHTEYN, A.M., inzh.

Erection of the superstructure of the bridge over the
Yenisey River in Krasnoyarsk. Transp.stroi. 12 no.7:18-20
J1 '62. (MIRA 16:2)
(Krasnoyarsk—Bridge construction)

AKSEL'ROD, Isay Solomonovich; AFAN'AS'YEV, Mikhail Aleksandrovich;
VEYNBLAT, Boris Markovich; GITMAN, Mark Borisovich, kand.
tekhn. nauk; DUBROVSKIY, Aleksandr Ivanovich; KAMENTSEV,
Vladimir Petrovich; KAMINSKIY, Boris Aleksandrovich, kand.
tekhn. nauk; KOLOKOLOV, Nikolay Mikhaylovich; EPSHTEYN,
Anatoliy Mordukhovich, prof.; KIRILLOV, V.S., kand. tekhn.
nauk, red.; GOLUBEKOVA, Ye.S., red.

[Road engineer's manual; the construction of bridges and
culverts] Spravochnik inzhenera-dorozhnika; stroitel'stvo
mostov i trub. Moskva, Transport, 1965. 735 p.
(MIRA 18:7)

L 7826-66 EWT(1)/ENP(m)/EWA(d)/FCS(k)/ETC(m)/EWA(1) WW

ACC NR: AP5026852

SOURCE CODE: UR/0170/65/009/004/0451/0456

AUTHOR: Epshteyn, A. M.

ORG: Institute of Thermophysics and Electrophysics AN EstSSR, Tallin (Institut termofiziki i elektrofizike AN EstSSR)

TITLE: The form of the axis of a turbulent jet in an unbounded horizontal transverse flow

SOURCE: Inzhenerno-fizicheskii zhurnal, v. 9, no. 4, 1965, 451-456

TOPIC TAGS: transverse flow, turbulent jet, mathematic analysis

ABSTRACT: The article treats the practically important case of the flow of a circular jet in a direction perpendicular to a transverse flow (See fig 1). The following two forces act on an element of the jet: the aerodynamic pressure of the transverse flow and the force of gravity. These two forces are balanced by the centrifugal force according to d'Alembert's principle. We thus have:

$$\rho_a v^2 F = \frac{C_a}{2} \rho_a w^2 b r \sin^2 \alpha + g \Delta \rho F r \cos \alpha. \quad (5)$$

The solution of the problem is based on the following assumptions: 1) the static pressure in the jet is equal to the static pressure in the unperturbed flow: 2) the

Card 1/3

UDC:532.517.4

I. 7826-66

ACC NR: AP5026852

0
projection of the momentum of the jet in a direction perpendicular to the direction of the transverse flow changes only under the effect of the force of gravity; 3) the excess heat content of the jet remains unchanged. Following the results of the calculations, figures are given which show: the dependence of the relative polar coordinates of the element of the jet on the relative magnitude of the initial momentum; the form of the axis of the jet, and the effect of the lift force on the form of the axis of the jet. The article proposes a dimensionless group which permits calculation of the gravitational force on the form of the jet. Orig. art. has: 22 formulas and 4 figures.

SUB CODE:ME/ SUBM DATE: 30Dec64/ ORIG REF: 004/ OTH REF: 003

Card 2/3

1. 7826-66
2. 7826-66

ACC-NR: AP5026852

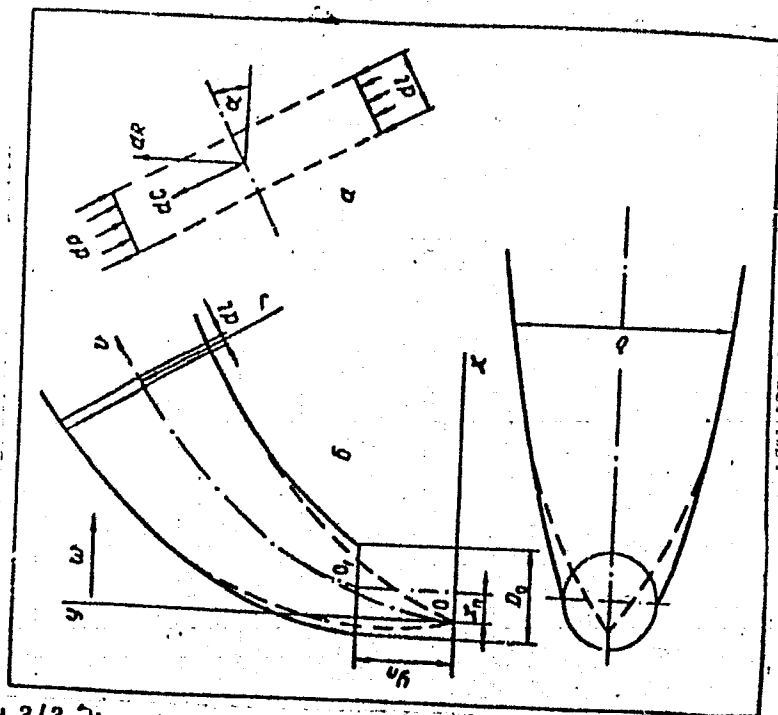


fig. 1
Plan of jet in transverse flow

Card 3/3 ~~20~~

EPSHTEYN, A.S.

Effect of novocain nerve block on experimental sensibilization processes.
Vest. khir. 71 no.2:75-76 1951. (CML 20:8)

AUTHOR: Epshteyn, A.S., Engineer SOV/122-59-4-2/28
TITLE: Investigation of the Working Process and Computation of
the Speed Characteristics of the D50 Engine
(Issledovaniye rabochego protsessa i raschet skorostnykh
kharakteristik dvigatelya D50)
PERIODICAL: Vestnik Mashinostroyeniya, 1959 Nr 4, pp 11-20 (USSR)
ABSTRACT: The operation of the D50 diesel engine with an exhaust
gas turbine driven supercharger is examined and a
procedure for predicting the performance at different
speeds is developed. The results of analysis are com-
pared with experimental data. The measured performance
values are plotted against the rpm for maximum fuel flow
(full throttle) and 75% of maximum fuel flow (Fig 1).
The main components of the heat flow are given in Table 1
together with other performance magnitudes. The indicator
diagrams in the engine cylinder and the exhaust
manifolds were taken with the help of an indicator of the
electro-pneumatic transmitter type. To study the
charging and scavenging of the cylinder, indicator
diagrams of the charging process were taken using the
"weak spring" method. The relevant values of

Card 1/6

SOV/122-59-4-2/28

Investigation of the Working Process and Computation of the Speed Characteristics of the D50 Engine

temperatures and pressures are listed in Table 1. Also tabulated are the indicated power, pressure, excess air coefficient and internal efficiency covering the range of rpm from 580 to 740 both at full throttle and 75% full throttle. The D50 engine has a variable exhaust gas pressure in front of the turbine. The pressure pulsations are achieved by the use of two separate exhaust manifolds leading the gas to the turbine. Three cylinders are exhausted into each of the manifolds. The firing order ensures a pulsating pressure. Fig 5 shows the manifold pressure indicator diagrams and illustrates peak pressures of 1.5 ata 3 times in every two revolutions both in the upper and lower manifolds. A single stage reaction turbine is used which has a smaller variation of efficiency during a change of its speed ratio. The supercharger power consumption was determined from its pressure and delivery measurements. The turbine and supercharger performance values are also given in Table 1. In the range of measurements, the speed was varied at full throttle between 580 and 740 rpm

Card 2/6

SOV/122-59-4-2/28

Investigation of the Working Process and Computation of the Speed Characteristics of the D50 Engine

and the nominal torque was found to change by 10%. At 75% full throttle, the speed was varied from 490 to 740 rpm and the torque changed by 11%. The indicated pressure changes little and the torque variation is due mainly to mechanical losses. The small variation of indicated pressure is due mainly to the opposite effects of volumetric efficiency and excess air coefficient variations. The pressure of the charging air in a supercharged engine has the main effect on the power curve. The procedure for obtaining the power curve by analysis is based on a sub-division of the whole power plant into the piston engine and the turbo-compressor units. The engine is considered supplied with supercharged air from an external source and working against an exhaust back pressure as though produced by a throttling nozzle (which represents the turbine). The turbo-compressor is considered as receiving gas from an external source and delivering supercharge air. The characteristic curves of each unit are plotted separately and the conditions for simultaneous work are established.

Card 3/6